

AMENDMENTS TO THE CLAIMS

This listing of claims will replace the listing of claims submitted in the prior Amendment and Reply Under 37 CFR § 1.111 dated March 7, 2007 in response to the Official Action mailed September 8, 2006.

Listing of Claims:

- 1-44. (Cancelled)
45. (Currently amended) A method for the production of starch and/or oil, ~~characterized in that comprising growing a transformed plant according to claim 4 that expresses at least one hemoglobin is used and recovering the starch and/or oil is recovered from said transformed plant.~~
46. (Cancelled)
47. (New) The method of claim 45, wherein the hemoglobin is derived from a plant selected from the group consisting of *Lupinus luteus*, *Glycine max*, *Medicago sativa*, *Medicago trunculata*, *Phaseolus vulgaris*, *Vicia faba*, *Pisum sativum*, *Vigna unguiculata*, *Lotus japonicus*, *Psophocarpus tetragonolobus*, *Sesbania rostrata*, *Casuarina glauca*, *Canvalaria lineate*, *Physcomitrella patens*, *Arabidopsis thaliana*, *Gossypium hirsutum*, *Oryza sativa*, *Brassica napus*, *Lycopersicon esculentum*, *Hordeum vulgare*, *Zea mays*, *Trema tomentosa*, and *Parasponia rigida*.
48. (New) The method of claim 45, wherein the hemoglobin is derived from *Arabidopsis thaliana*.
49. (New) The method of claim 45, wherein the hemoglobin is expressed in a storage-organ-specific manner.
50. (New) The method of claim 45, wherein the hemoglobin is expressed in a tuber-specific, seed-specific, or tuber- and seed-specific manner.
51. (New) The method of claim 45, wherein the hemoglobin is encoded by a nucleotide sequence having at least 90% identity with the nucleotide sequence as set forth in SEQ ID NO: 5.
52. (New) The method of claim 45, wherein the hemoglobin is encoded by the nucleotide sequence as set forth in SEQ ID NO: 5.

53. (New) The method of claim 45, wherein the transformed plant is a monocotyledonous crop plant.
54. (New) The monocotyledonous crop plant according to claim 53, characterized in that it is a *Gramineae* species.
55. (New) The method of claim 45, wherein the transformed plant is a dicotyledonous crop plant.
56. (New) The dicotyledonous crop plant according to claim 55, characterized in that it is a *Asteraceae*, *Brassicaceae*, *Compositae*, *Cruciferae*, *Cucurbitaceae*, *Leguminosae*, *Rubiaceae*, *Solanaceae*, *Sterculiaceae*, *Theaceae* or *Umbelliferae* species.
57. (New) The dicotyledonous crop plant according to claim 55, characterized in that the plant is selected from the group consisting of *Borago officinalis* (borage), *Brassica campestris*, *Brassica napus*, *Brassica rapa* (mustard or oilseed rape), *Cannabis sativa* (hemp), *Carthamus tinctorius* (safflower), *Cocos nucifera* (coconut), *Crambe abyssinica* (crambe), *Cuphea* species, *Elaeis guinensis* (African oil palm), *Elaeis oleifera* (American oil palm), *Glycine max* (soybean), *Gossypium hirsutum* (American cotton), *Gossypium barbadense* (Egyptian cotton), *Gossypium herbaceum* (Asian cotton), *Helianthus annuus* (sunflower), *Linum usitatissimum* (linseed or flax), *Oenothera biennis* (evening primrose), *Olea europea* (olive), *Oryza sativa* (rice), *Ricinus communis* (castor-oil plant), *Sesamum indicum* (sesame), *Triticum* species (wheat), *Zea mays* (maize), walnut and almond.
58. (New) The method of claim 45, wherein the transformed plant is potato, *Arabidopsis thaliana*, soybean or oilseed rape.